

CLAIMS

What is claimed is:

1. A set of targets for testing spatial frequency and contrast sensitivity comprising:
 - a) a plurality of targets, each of said plurality of targets including a grating of parallel aligned light and dark areas having a spatial frequency and a contrast level; and
 - b) each of said plurality of targets having a unique combination of spatial frequency, contrast level and grating orientation where the grating orientation is either vertical, horizontal or at an angle thereto.
2. The set of targets of claim 1 wherein the angle is 45° .
3. The set of targets of claim 1 wherein the angle is 30° .
4. A sinusoidal bull's eye target for testing spatial frequency and contrast sensitivity comprising concentric circular light and dark areas with brightness varying in a sinusoidal fashion and having a spatial frequency and a contrast level.
5. A set of targets for testing spatial frequency and contrast sensitivity comprising:
 - a) a plurality of sinusoidal bull's eye targets, each featuring concentric circular light and dark areas with brightness varying in a sinusoidal fashion; and

- b) each of said plurality of sinusoidal bull's eye targets having a unique combination of spatial frequency and contrast level.

6. A fundamental sinusoidal optotype target for testing spatial frequency and contrast sensitivity comprising an optotype constructed from a plurality of strokes, where each of said strokes features a width equal to is a single sinusoidal period and a length that is a multiple of the width.

7. The fundamental sinusoidal optotype target of claim 6 wherein the optotype is a letter.

8. The fundamental sinusoidal optotype target of claim 6 wherein the optotype features a width and a length that are equal to each other and five times the stroke width.

9. A set of targets for testing spatial frequency and contrast sensitivity comprising:

- a) a plurality of fundamental sinusoidal optotype targets, each featuring an optotype constructed from a plurality of strokes where each of the strokes features a width equal to a single sinusoidal period and a length that is a multiple of the width; and
- b) each of said plurality of fundamental sinusoidal optotype targets having a unique combination of spatial frequency and contrast level.

10. The set of targets of claim 9 wherein each of the optotypes is a letter.

11. The set of targets of claim 9 wherein each of the optotypes features a width and a height that are equal to each other and five times the stroke width.

12. A method of testing spatial frequency and contrast sensitivity comprising the steps of:

- a) providing a plurality of targets, each of said plurality of targets including a grating of parallel aligned light and dark areas having a spatial frequency and a contrast level and each of said plurality of targets having a unique combination of spatial frequency, contrast level and grating orientation where the grating orientation is either vertical, horizontal or at an angle thereto.
- b) presenting a first one of said plurality of targets to a patient; and
- c) presenting a second one of said plurality of targets to a patient, said second one of said plurality of targets having a grating orientation that is 90° from the grating orientation of the first target.

13. The method of claim 12 wherein the angle of step a) is 45°.

14. The method of claim 12 wherein the angle of step a) is 30°.

15. The method of claim 12 wherein the second one of said plurality of targets of step c) has the same spatial frequency as the first target but a different contrast level.

16. The method of claim 12 wherein the second one of said plurality of targets of step c) has the same spatial frequency and contrast level as the first target.

17. A method of testing spatial frequency and contrast sensitivity comprising the steps of:

- a) providing a plurality of sinusoidal bull's eye targets having concentric circular light and dark areas with brightness varying in a sinusoidal fashion, each of said targets having a unique combination of spatial frequency and contrast level;
- b) providing a control;
- c) displaying one of said sinusoidal bull's eye targets to a patient;
- d) asking the patient if he sees the sinusoidal bull's eye target;
- e) displaying the control; and
- f) asking the patient if he sees the sinusoidal bull's eye target.

18. A method of testing spatial frequency and contrast sensitivity comprising the steps of:

- a) providing a plurality of sinusoidal bull's eye targets having concentric circular light and dark areas with brightness varying in a sinusoidal fashion, each of said targets having a unique combination of spatial frequency and contrast level;
- b) displaying a first one of said plurality of sinusoidal bull's eye targets to a patient;
- c) asking the patient if he sees the sinusoidal bull's eye target;
- d) displaying a second one of said plurality of sinusoidal bull's eye targets to the patient, the second target having a lower contrast level than the first target; and

- e) asking the patient if he sees the sinusoidal bull's eye target.

19. A method of testing spatial frequency and contrast sensitivity comprising the steps of:

- a) providing a plurality of sinusoidal bull's eye targets having concentric circular light and dark areas with brightness varying in a sinusoidal fashion, each of said targets having a unique combination of spatial frequency and contrast level;
- b) displaying a first one of said plurality of sinusoidal bull's eye targets to a patient;
- c) asking the patient if he sees the sinusoidal bull's eye target;
- d) displaying a second one of said plurality of sinusoidal bull's eye targets to the patient, the second target having a spatial frequency that is different from the first target; and
- e) asking the patient if he sees the sinusoidal bull's eye target.

20. A method of testing spatial frequency and contrast sensitivity comprising the steps of:

- a) providing a plurality of fundamental sinusoidal optotype targets, each featuring an optotype constructed from a plurality of strokes where each of the strokes features a width equal to a single sinusoidal period and a length that is a multiple of the width;
- b) displaying one of said fundamental sinusoidal optotype targets to a patient;
- c) asking the patient if he sees the fundamental sinusoidal optotype target;

- d) displaying a second one of said fundamental sinusoidal optotype targets to the patient, the second target having a lower contrast level than the first target; and
- e) asking the patient to “name” the fundamental sinusoidal optotype target.